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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,468

01/29/2004

Kheng Chiong Tay

07044.0002

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7590

04/03/2009

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

REAMES, MATTHEW L

ART UNIT

PAPER NUMBER

2893

MAIL DATE

DELIVERY MODE

04/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/766,468	Applicant(s) TAY ET AL.	
	Examiner Matthew Reames	Art Unit 2893	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6 and 9-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,9-16 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 17-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6 and 9-16, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly (20020/0121683) in view of Roberts ('548).

a. As to claim 1 and 10, Kelly teaches An optoelectronic component based on a surface mount technology, the optoelectronic component comprising: an electrically conductive frame forming a base for an assembly (see e.g. items 18 16 and 14); an plastic material forming a housing for the assembly (see e.g. item 12) a cavity formed within the plastic material (where the die sits; at least one protrusion extending from a side surface of the housing to provide heat dissipation (see e.g. item 18); and at least one optoelectronic chip mounted in the cavity, wherein the base emanates from an internal middle portion and is flush with the bottom surface and two other side surfaces of the housing (see e.g. figs. 1 and 2), so as to extend past the two other side surfaces of the housing (see e.g. figs. 1,2 and 3 lead elements), the bottom surface and the two other side surfaces of the housing providing external mounting connection terminals (see e.g. figs. 1-3 and items 14, 16 and 18).

Kelly does not explicitly teach an opaque plastic or a where the base protrudes past the bottom surface of the housing.

Roberts teaches that opaque plastic have better heat resistant properties than transparent plastics (see e.g. last paragraph of column 3 and all of column 4). Robert further teaches a heat extraction member to help with heat dissipation that extend past the bottom surface of the housing (see e.g. item 204).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a partially opaque plastic and to have formed a heat extraction member as Roberts in the device of Kelly.

One would have been so motivated in order to create a better heat resistant device as suggested by Roberts.

- b. As to claims 2, 10, and 11, Roberts teaches a opaque housing filled with a transparent resin (see e.g. item 203).
- c. As to claims 3, and 13 Kelly teaches the use of a wire to connect the base to the chip (see e.g. item 20).
- d. As to claims 4 and 14, Kelly terminals can be used for connecting to external sub systems such as PCBs and therefore meet the claim limitations (the language is functional since Kelly's lead are electrical conductive it is possible to use them in the manner claimed).

- e. As to claim 6, Roberts teaches the base protruding from the bottom of the opaque housing (see e.g. item 204).
- f. As to claims 9, and 12 Kelly's device does not need leads for mounting (the lead frame/base is built in the device).
- g. As to claim 15, Kelly/Roberts teaches the entire base will inherently provide heat dissipation.
- h. As to claim 16, Kelly teaches that the base extend along the bottom surface for the entire length of the device (see e.g. figs. 1-3 and items 14, 16 and 18).
- i. As to claim 20, Kelly teaches at least three frames with 18 bigger than 16 and 18 bigger than 14 with 18 protruding from one of the other sides and 16 and 14 protruding from the other two sides.
- j. As to claim 21, Kelly teaches element 18 is larger than the others.
- k. As to claim 22, Kelly teaches symmetric protrusions from all the sides (see e.g. fig. 6).
- l. As to claim 23, Kelly teaches the chip on the largest frame item 18.

Allowable Subject Matter

- 3. Claims 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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4. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to teach or suggest each of the base section protruding from the bottom surface and at least one of the two other side surfaces.

Response to Amendment

5. The Affidavit with the Malaysian patent application filed on 12/5/2008 under 37 CFR 1.131 is sufficient to overcome the Hsu ('727) reference.

The final rejection dated 3/3/2009 is hereby withdrawn.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Reames whose telephone number is (571) 272-2408. The examiner can normally be reached on M-Th 6:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Davienne Monbleau can be reached on (571)272-1945. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MLR/

/Jack Chen/

Primary Examiner, Art Unit 2893